

## PVT PEI Coupled SPA Beads

Product Number: RPNQ0097 (500mg)

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### Warning

For research use only.

Not recommended or intended for diagnosis of disease in humans or animals.

Do not use internally or externally in humans or animals.

### Storage

This material should be stored, protected from light, at 2-8°C.

### Expiration

Once Reconstituted, the beads are stable for up to 7 days when stored in the appropriate conditions.

### Safety Warnings and Precautions

All chemicals should be considered as potentially hazardous. We therefore recommend that this product is handled only by those persons who have been trained in laboratory techniques and that it is used in accordance with the principles of good laboratory practice. Wear suitable protective clothing such as laboratory overalls, safety glasses and gloves. Care should be taken to avoid contact with skin or eyes. In the case of contact with skin or eyes wash immediately with water. See material safety data sheet(s) and/or safety statement(s) for specific advice.

**CAUTION:** For use with radioactive material.

This product is to be used with radioactive material. Please follow the manufacturer's instructions relating to the handling, use, storage, and disposal of such material.

### Quality Control

Each batch of PVT PEI coupled SPA beads is tested for its relative binding capacity of [3H] Thymidine Triphosphate.

### BEAD RECONSTITUTION

Before use, the SPA beads should be reconstituted in a buffer appropriate for the particular assay to be performed. The SPA beads should be mixed to ensure a homogeneous suspension while pipetting. This may be done by continuous agitation with a magnetic stirrer. Reconstituted beads can usually be stored at 2-8°C for up to seven days. **DO NOT FREEZE. PLEASE NOTE:** The PVT PEI coupled SPA beads have been freeze-dried from a 1% sucrose solution. Anti-microbial agents are not included in this reagent. The user should therefore be aware that microbial contamination may occur when the reconstituted beads are stored for prolonged periods. If anti-microbial agents

(eg Sodium Azide) are added on storage, then it remains the responsibility of the user to evaluate the effects of the added agent on the assay.

## ASSAY CONDITIONS

PVT PEI coupled SPA beads, when coupled to membrane bound receptors, are designed to be used in ligand binding assays. During assay incubation, carbohydrate residues present in cell membranes bind to PEI on the SPA bead, effectively immobilizing the receptorbearing membranes on to the SPA bead. The binding of radiolabelled ligands to such immobilized receptors brings the isotope into close proximity with the scintillant which is incorporated within the bead. This allows the emitted radiation (beta-particles for [3H] or Auger electrons for [125I]) to stimulate the scintillant to emit light. Any unbound radiolabelled ligand is not in close enough proximity to the scintillant to allow such energy transfer and hence no signal is generated. Light emitted by stimulated SPA beads can be detected by either conventional scintillation counters or multidetector instruments. It remains the responsibility of the user to optimize the amount of bead required and the incubation time required for each assay. To achieve optimal counts, excess SPA bead should be present in order to capture all of the receptor present in the assay tube. The amount of receptor preparation together with the radiolabelled ligand being used needs to be optimized for each assay.

Samples which are colored may require color quench correction.

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RPNQ0097-R Rev01

The logo for Revvity, featuring the word "revvity" in a lowercase, sans-serif font.